

No 8

I. #21

68 St. Smith

Passed March 8th 1826

An
Inaugural
Dissertation
on
Catarrhus Epilemicus
or
Influenza

by John W. Burrell of Pittsburg
Penn^a

Examination of the
in

the

of the

Prefatory Note

In Selecting the subject of Influenza for my Inaugural Dissertation, my object was to show the striking analogy of some of its most prominent symptoms to Peripneumonia Notha, as it appeared in Pittsburg; though I have observed its symptoms are nearly alike, in every place of its prevalence.

In deciding on a Disease as a subject for a Dissertation, much difficulty presented; as the great variety of diseases which are interesting to Physicians, have already attracted the attention, and exhausted the ingenuity of other Candidates for Medical degrees, and as all diseases have been treated of by Medical writers of the greatest celebrity, on whose descriptions and modes of practice, I could not have flattered myself with the hope of making any improvement. In the progress of this Essay,

I have therefore been obliged, to take a review of the opinions of some of the latest writers, who have written on this subject; and confidently hope, that due allowance will be given for the imperfect production of one availing in the pursuit of medical science, and the benefit of mankind.

Influenza

According to Dr Cullen this disease is ranked in the class Typhus - order of Profluvia - genus of Catarrhs, and Species, a contagione.

Definition

It appears that this disease, is exclusively of atmospherical origin. Its remote cause is probably a salutarious gas, with the nature of which, we are wholly unacquainted. This gas, whatever be its origin, or composition, is capable of diffusing

I have thought it proper to make a list
of the names of some of the persons
who have been in the office of the
Secretary of the Treasury since the
first of January 1800 to the first of
January 1801. The names of the
persons who have been in the office of
the Secretary of the Treasury since the
first of January 1800 to the first of
January 1801 are as follows:

1800

January 1st to January 1st 1800
in the office of the Secretary of the
Treasury were the following persons:
1. Alexander Hamilton
2. John Jay
3. Robert R. Livingston

1801

January 1st to January 1st 1801
in the office of the Secretary of the
Treasury were the following persons:
1. Alexander Hamilton
2. John Jay
3. Robert R. Livingston
4. James M. Smith
5. John C. Calhoun
6. John W. Taylor
7. John W. Taylor
8. John W. Taylor
9. John W. Taylor
10. John W. Taylor

itself through a greater extent of atmosphere,
and with greater celerity than any other, which as
was exemplified by its rapid diffusion through
Philadelphia, Pittsburg, and other places in 1826.

It consists in a preternatural, and increased
secretion of mucus, from the Schneiderian
membrane, Fauces, and Bronchiæ, accompanied
with cough, Dyspnea, Pyrexia, &c.

History of the Disease.

Influenza was known to some of our earliest
Medical writers, though under different names.
From the time of Hippocrates to Sydenham
it was called Febris Catarrhalis Epidemica;
In 1673 Sydenham supposed it to be a new fever,
and named it accordingly.

When Astrology took the lead of true Science
and the people began to fancy all terrestrial
things were governed by the Heavens, some
Italian doctors, supposed that this disease

proceeded from the influence of the Stars, and therefore denominative it Influenza. This disease prevailed at certain periods very extensively, not only in this country, but over the whole world, in a short space of time. Its course in its progress is generally from north to south; though occasionally, in the contrary direction. Contagion has been thought by eminent men, to be its mode of propagation; but this opinion says Doctor Chapman, is entirely unproved, and to my mind it is no easy matter, to believe, that a disease can spread so far and wide in so short a time, as it does; or how it can affect so many persons many miles distant at the same time, where it has no direct, or indirect, communication if propagated by a matter arising from the body of a patient, labouring under it.

* "during its prevalence persons completely

* Dr Chapman

"sequestered, as monks &c have all at once become
 "affected, without any sensible cause," and as
 "Hippocrates says, "When many are seized
 with the same disease at one time, the cause
 is chiefly to be attributed to what is most
 common, and made use of by all. This is
 certainly what we inhale in inspiration".

This disease is governed by all the laws of
 Epidemics. It is generally of an inflammatory
 character, but sometimes, though rarely, ^{it} puts on
 a Typhoid Type, at other times it assumes
 a Bilious character, and the treatment must
 of course, be modified accordingly.

Symptoms

The Influenza made its appearance in the City
 of Pittsburg in April 1826, previous to which,
 the weather was dry and warm, succeeded by
 cold, and frost. It generally sets in, with

universal lassitude, with chills, and heats, thirst, an acute pain; with gidelinefs in the head; flushings in the face; great oppression at the chest; sore throats; hoarseness, violent pains affecting the arms, loins and thighs; which very much resembled the rheumatism, and sometimes were remarkably severe.

The breast was often affected with acute darting, or flying pains; these sometimes became fixed, and were accompanied with a painful, and laborious respiration.

A cough universally attended this disease.

Violent sneezing, followed by a discharge of acrid matter from the nose, in some cases, ushered in the disease.

The stomach was sometimes affected with nausea, and vomiting; the pulse was various, though generally tense and quick; the fever remitted generally on the fifth day, the cough sometimes

continued for several weeks, after all the other symptoms had subsided. The tongue was usually white and the Patients generally complained, of want of appetite. The disease in some cases terminated by a spontaneous sweat.

Diagnosis

This disease may be confounded with common Catarrh, and with Peripneumonia Notha; and may be discriminated from the former by its commencing with more cold shivering, by the febrile symptoms appearing earlier; and being more considerable in degree, it gives a greater and more sudden shock to the strength, it likewise affects more persons at once, and spreads over a greater extent of country, in a given time. Catarrh can generally be shown to proceed from some sensible quality in the Atmosphere, Cold, - Moisture &c, while on the other hand Influenza is not produced by these, but must

be ascribed to some peculiar property of the air itself. The analogy of the symptoms of Peripneumonia Notha, and Influenza, in some particular cases which occurred in Pittsburg, persuaded me to believe that they were one, and varieties of the same disease; and the difference was, in the violence of the symptoms. and as Doctor Cullen says, (See Caldwells Cullen Vol 5th Page 288) this disease (viz Peripneumonia Notha) appears at the same seasons, that other Pneumonic and Catarrhal affections commonly do; that is in the autumn and spring. Like these diseases also. it is seemingly occasioned by sudden changes of the weather from heat to cold. It appears also, during the prevalence of Contagious Catarrhs, and it is frequently under the form of Peripneumonia Notha, that these Catarrhs prove fatal to elderly persons. Likewise in Post Mortem examinations, the air vessels of the Lungs, are

found obstructed with a thick viscid mucus, which is certainly the secretion from the bronchia; which secretion, characterises Influenza.

Numbers of cases could be related whose all the symptoms of Peripneumonia Notha, and Influenza, were so blended together, that I found it impossible to discriminate between them; or to tell which was the existing disease. The only discriminating symptoms of this disease, are, ^{of which diseases} that it most commonly, attacks persons somewhat advanced in life; especially those of a full phlegmatic habit; but these are the persons that I have remarked to be most frequently and violently affected, with Catarrhus Epistemicus.

Doctor Cullen also further remarks (Page 289 Vol 1st Caldwells Cullen) "From the different circumstances in which this disease Peripneumonia Notha appears, the Pathology of it is difficult. It is certainly often no other at first than a Catarrh"

affection, which, in elderly persons, is frequently
 attended with a large afflux of mucus to the
 Lungs; and it was on this footing, that
 Sydenham considered it as only differing in
 degree from his Tubris Hyemalis. A Catarrh,
 however, is strictly an affection of the mucous
 membrane, and follicles of the Bronchia
 alone: but it may readily have, and frequently
 has, a degree of Pneumonic inflammation
 joined to it, and in that case, may prove
 more properly, the peculiar disease we treat of
 here; but further, as Pneumonic inflammation
 very often produces an effusion of serum into the
 Bronchia, so this in elderly persons, may occur
 in consequence of a slight degree of inflammation,
 and when it does happen, will give great pain,
 and fatal cases of the Pneumonia Plethorica will
 often ensue. I shall, however, enter no further
 into this controversy; as truth is the object

of which I am in search, and not the pursuit of fame for new discoveries; but, shall endeavour to describe the disease as it has appeared to myself, and, as I judge, to all other observers.

Causes

These are divided into four kinds. The Remote. The Predisposing. The Occasional or Exciting. And the Proximate. 1st The Remote cause, is whatever predisposes to the disease, namely, Long-Fasting. Evacuations. Fatigue &c. the consequence of which is, Debility; or the Predisposition to disease, which constitutes the 2nd cause or Predisposing. 3rd The Exciting, or occasional Cause, must be that external circumstance, which kindles the fever, to wit, Morbid Miasma. 4th Proximate Cause, or Ipse Morbus, of Gabius and Rush, appears to be a degree of Inflammation affecting the mucous membrane of the Nose, Throat, and Bronchia; which invites an increased afflux of fluids

to these parts; hence, the consequence is, an increased secretion. An increased Inflammation of the internal surface of these parts, not only suppresses secretion there, but is followed by Sense of fullness in one or both nostrils; Oppression Siccæ, a Quinshol pulse, and fever. The febrile action of the arterial System is a natural consequence of Inflammation in these parts; for as Dr. Ferrius observes in his excellent work on fevers, page 14 "any such impediment to the free circulation of the blood, as disturbs its equilibrium, is the essential character of a fever."

Of the Cure

The treatment of this disease, like all others of an inflammatory nature, consists of the Antiphlogistic remedies; though so moderate is the Influenza, in many instances, as to require but a few days refraining from

+ Does the gentleman believe Miasm so Material & says
he is to be removed by the Mechanical operation of an
Emetic?

the use of animal food; to lie in bed, or keep within doors, taking at the same time, some warm diluent drink; and to return gradually, to the usual manner of living; whilst in others, again, great attention is absolutely necessary; and the Case difficult. Emetics are valuable remedies, and much more so, when administered upon the first attack of the disease; not only where there is reason to suspect an accumulation of mucus, in the Bronchial ramifications, but also where they are given chiefly with a view, to assist in procuring, a Speedy and copious perspiration; which in some patients, wholly carries off the Miasm, before it becomes fixed, and propagated, in the body; and as Dr. Cullen remarks, * "For restoring the determination of the Fluids to the surface of the body, and at the same time for expelling

* Caldwell's Cullen Page 68 Vol 2nd

the secretion of Mucus in the Lungs, which, may
 take off the Inflammation of its membrane,
 "vomiting is the most effectual ~~and~~ means." —
 Whenever Stitches, or acute Pains about the Chest
 take place, then these medicines would be
 improper, as tending to give exquisite, and
 unnecessary Pain, and would enlarge the
 rupture of a blood vessel in the Lungs.

When Pneumonic symptoms, such as acute Pain
 in the chest, and a full or hard pulse take
 place, Blood Letting is a proper and
 speedy remedy to take down the Phlogistic
 diathesis. Yet, from the great disposition
 which this disease has to degenerate into
 Typhus, we should be cautious in the use of the
 Lancet. In general, the Patient never sooner
 when it is omitted, except where the above
 symptoms are present. When the inflammatory
 affections of the Lungs seem to be considerable,

+ What rule for the Application of Merits?

+ What is the evidence of this determination?

= What is the difference between Catholic and Protestant?

it is proper besides blood letting, to apply
Blisters on some part of the Thorax; and in
 some cases I found it necessary to repeat
 the Blistering two, or even three, times.

Cathartics are necessary medicines, partic-
 -ularly, when there is a determination to the
 abdominal Viscera; and if the patient
 be affected with Much Cough, Violent
 head-ach, constipation &c.

Laxatives in some cases, seem preferable
 to Purgatives, as the latter debilitate the
 System considerably, by a single operation,
 if given in a full dose; and the former
 keep the body regular, or gently Lax,
 which is so desirable in preventing Costiveness
 in this, as well as in all other Febrile or
 inflammatory diseases. In determining to the
 surface, keeping the bowels moderately open and
 promoting expectoration, nauseating doses of

+ What is the paper Bois?

+ Under what circumstances?

≠ What do you understand by an anti-ph. ag.

16th

Tartarized Antimony, combined with nitre, is a useful remedy, taking care at the same time, not to give them in too large doses, as they often act prejudicially, by bringing on evacuations, which may entirely sink the patient; as also when continued for a long time, they are apt at length to debilitate the stomach, so much as to render it in a great measure, incapable of retaining food, medicines, &c. These medicines likewise, soon lose their sudorific power over the system. After the inflammatory symptoms have much abated, if there exists an irritating, troublesome cough, a combination of Speacuanha, and opium, or the Balsam of Golu, with Laudanum, are very good; and afford the most effectual means of relieving it. The particular observance of the Antiphlogistic Regimen,† can not be too strongly inculcated in the inflammatory stage of this disease,

17th

particularly avoiding Animal Food, which according to Dr. Sydenham, is sacred and must not be touched. our really venerable Doctor Chapman, limits the Diet of his Patients, to Vegetables, as Rice, Turnips, Potatoes, Homony, the vegetable Soups &c. Low Diet has its limits, nor should it be much longer persisted in, then whilst the inflammatory diathesis is present, in the system; for a generous Diet in some instances, is highly conducive to a more speedy recovery.

The drinking frequently of Tepid Emolient Drinks, acts as an internal relaxing Potus, which is of great consequence, in inflammation of the Lungs &c. It appears that the Italians use Ice water in inflammation of the Lungs, and with great advantage; though I should suppose, it might prevent, or check, a salutary Perspiration. Bathing the feet in warm water

is an excellent remedy; and should never be omitted in the incipient stage of this, or of any, other, Catarachal affection; the temperature should be somewhat higher than that of the Patients own body; taking at the same time, some warm Diluents Drinks, together with a few drops of Antimonial Wine.

The Pediluvium encourages a large share of blood, from the head; and Superior parts, to the lower; it determines to the surface; is generally followed by sleep, and moderates the cough &c. The frequent Inhalation of Eucalyptus vapours, constitute a remedy of great importance; Water, Vinegar and Water, Ether and Water. Tar water, Resin and Water, are some of the best. The method of applying the Vapours, is of little importance; the Steam received through an inverted funnel, answers as well, as, and perhaps better, than some of the Inhalers.

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Towards the decline of the Disease, where the expectoration is both viscid, and difficult, Squills may be employed with benefit. When the Cough proves troublesome, and the febrile symptoms have subsided, an anodyne at night may have a good effect. Languor and debility, which invariably attend the convalescent state of this Epidemic, requires the use of Tonics such as the Decoction of Bark, with the mineral acids, &c; or the Cold Infusion of Peruvian Bark, which is the best Tonic preparation of Bark I ever prescribed; prepared as follows, Mix one ounce of Bark in powder, in a quart of water; add two drachms salt of Tart^r, (Carbonas Potasae Purissimum) the Deca large wine Glassfull, to be taken every two hours for an adult; taking care to shake the Mixture every time before taken. It very seldom

20th

occasional purging. Continence or fever; but seems to correct acid (if present) in the stomach, and intestines; and may be given frequently in the febrile state, in which state it seems to have the peculiar effect of a Febrifuge.

Cases

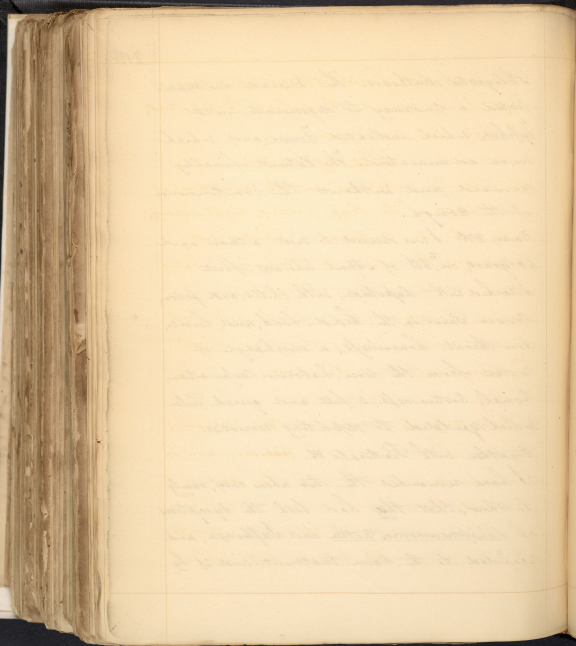
Case First. I was requested to visit a patient on the second of April, a man about the age of 27 years. The symptoms were, First, Lassitude with chills, and fever, bad taste in the mouth, together ^{with} want of appetite. His breast was affected with acute flying Pains, with a severe cough, and sore throat. Pains in his back and thighs, which were remarkably severe; his pulse tense and quick. The treatment was Bleeding, Purging, and Vomiting, together with Laxatives, and Blisters to the chest. which soon subdued the

Phlogistic diathesis. The Disease now manifested a tendency to degenerate into typhus; which indicated Tonic; and which were administered. The Patient finally recovered and without the continuance of the Cough.

Case 2nd I was desired to visit a man aged 40 years, on ^{the} 6th of April who was first attacked with Lapsitude, with chills, and fever, severe Pains in the head, back, and loins, Sore throat, hoarseness, a discharge of mucus from the nose, Laborious respiration, Cough, Costiveness, a full and quick Pulse which yielded to depleting remedies.

together with Pectorals &c.

I have remarked the two above cases, merely to show, that they had both the symptoms of Peripneumonia Notha, and Influenza, and yielded to the same treatment, and if by



this weak but honest attempt of a Medical
 Tyro. I have caused the subject to be noticed,
 I shall feel satisfied.

Prophylactics

The best preventatives are the avoidance of
 the causes, as too long fasting, night watching,
 fatigue, &c also temperance in eating, and
 drinking: with respect to temperance in eating
 I wish not to inculcate the avoidance of a
 proper quantity of food; as changes in the
 manner of living, during the rage of an
 Epidemic, are always dangerous

Prognosis

Respecting the prognosis of this Disease,
 little can be said, as the ~~Termination~~ ^{Termination}, or
 consequences, are like every other part of it,
 extremely various.

I have now considered the most interesting
 particulars of this Disease; but before I

close this imperfect Essay, it remains for
 me to proffer my thanks to the Medical
Professors of this University, for the
 permanent advantages which I have
 derived from their instructing Lectures.
 May they long continue to exert the
 duties attached to their respective depart-
 ments, with the same reputation that has
 hitherto crowned their labours, is the sincere
 wish of their obliged and grateful Pupil
John H. Russell

4th Oct. 1826-

Spelling not always correct, nor is the language

